

27 July 2009  
\\ANF\\A-Nuclear Blog  
Daniel Ellsberg

*[This is the introduction to my insider's memoir of the nuclear era-- reflecting my official, classified work on nuclear war planning, command and control and nuclear crises--entitled: "A Chronicle of Madness: the American Doomsday Machine." The internet series will resume regularly just after Labor Day, with "American Planning for a Hundred Holocausts." These installments will be available on my website, [www.ellsberg.net](http://www.ellsberg.net)-- along with an archive of Nuclear Papers--and will be offered to a number of other sites and blogs. Interested readers can sign on now or at any time to an e-mail list at my website for regular mailings.]*

### August 6, 1945/2009

During the Second World War, my father was the chief structural engineer in charge of designing the Ford Willow Run plant, a factory to make B-24 bombers for the Air Corps. He was proud of the fact that it was the largest industrial building under one roof in the world. It put together bombers the way Ford produced cars, on an assembly line. The assembly line was a mile and a quarter long.

Once my father took me out to Willow Run to see the line in operation. For as far as I could see, the huge metal bodies of planes were hanging from hooks moving along a belt, with workers installing parts as they moved. It was like pictures I had seen of the steer carcasses in a Chicago slaughterhouse. Finally, the planes were lowered to the floor, one after another, rolled out the hangar doors at the end of the factory, filled with gas, and flown out to war.

It was an exciting sight for a thirteen-year-old. I was proud of my father. His next wartime job was to design a still larger airplane factory, again the world's largest plant under one roof, the Dodge Chicago plant.

When the war ended, Dad accepted an offer to oversee the buildup of the plutonium production facilities at Hanford, Washington. That project was being run by General Electric under contract with the Atomic Energy Commission. To take the job of chief structural engineer on the project, Dad moved to the Giffels and Vallet company, which became Giffels and Rossetti. Later he told me the firm at that time had the largest volume of construction contracts in the world, and his project was the world's largest at that time. I grew up hearing these superlatives.

The Hanford project gave my father his first really good salary. But while I was away as a sophomore at Harvard, he left his job with Giffels and Rossetti, for reasons

I never learned at the time. He was out of work for almost a year. Then he went back as chief structural engineer for the whole firm. Almost thirty years later, when my father was eighty-nine, I happened to ask him why he had left Giffels and Rossetti.

He said, "Because they wanted me to help build the H-bomb."

This was a rather startling statement for me to hear. In that year, 1978, I was in full-time opposition to the nuclear arms race, and specifically to the deployment of the neutron bomb—a small H-bomb—which President Carter was proposing to send to Europe. I was arrested four times in 1978 on the railroad tracks at Rocky Flats Nuclear Weapons Production Facility, which produced all the plutonium triggers for H-bombs and was going to produce the cores for neutron bombs.

One of these arrests was on Nagasaki Day, August 9. The "triggers" produced at Rocky Flats were, in effect, the nuclear components of A-bombs, plutonium fission bombs of the type that had destroyed Nagasaki on that date in 1945. Every one of our many thousands of H-bombs, thermonuclear fusion bombs, requires a Nagasaki-type A-bomb as its detonator.

(I doubt that one American in a hundred knows that simple fact: or thus, has a clear understanding of the reality of our thermonuclear arsenal of the last fifty years. Our popular image of nuclear war—from the familiar pictures of the devastation of Nagasaki and Hiroshima—is grotesquely misleading. Those pictures show us only what happens to humans and buildings when hit by what is now just the *detonating cap* for a modern nuclear weapon, whose explosive power may be twenty, a hundred or a thousand times greater than that of the Nagasaki bomb.)

The plutonium for these weapons came from Hanford and the Savannah River Site in Georgia and was machined into weapons components at Rocky Flats. We blockaded the entrances to the plant that day to interrupt business as usual on the anniversary of the day a plutonium bomb had killed 58,000 humans (about 100,000 by the end of 1945).

I had never heard before of any proposed connection of my father with the H-bomb. He wasn't particularly wired in to my anti-nuclear work or to any of my activism since the Vietnam War had ended. I asked him what he meant.

"They wanted me to be in charge of designing a big plant that would be producing material for an H-bomb." He said that DuPont, which had built the Hanford Site, would have the contract from the AEC. That would have been for the Savannah River Site. I asked him when this was.

"Late '49."

I told him, "You must have the date wrong. You couldn't have heard about the hydrogen bomb then, it's too early." I'd just been reading about that. The General



Advisory Committee of the AEC --chaired by Robert Oppenheimer and including James Conant, Enrico Fermi and Isador Rabi--were considering that fall whether or not to launch a crash program for an H-bomb. They had advised strongly against it, but President Truman overruled them.

"Truman didn't make the decision to go ahead till January 1950. Meanwhile the whole thing was super-secret. You couldn't have heard about it in '49."

My father said, "Well, somebody had to design the plant if they were going to go ahead. I was the logical person. I was in charge of the structural engineering of the whole project at Hanford after the war. I had a Q clearance."

That was the first I'd ever heard that he'd had a Q clearance — an AEC clearance for nuclear weapons design and stockpile data. I'd had that clearance myself in the Pentagon—along with close to a dozen other special clearances above Top Secret--after I left the RAND Corporation for the Defense Department in 1964. It was news to me that my father had had a clearance, but it made sense that he would have needed one for Hanford.

I said, "So you're telling me that you would have been one of the only people in the country who knew we were planning, or considering building the H-bomb in 1949?"

He said, "I suppose so. Anyway, I know it was late '49, because that's when I quit."

"Why did you quit?"

"I didn't want to make an H-bomb. Why, that thing was going to be 1,000 times more powerful than the A-bomb!"

I thought, score one for his memory, at eighty-nine. He remembered the proportion right. That was the same factor Oppenheimer and the others predicted in their report in 1949. The first explosion of a true H-bomb, five years later, had 1200 times the explosive power of the Hiroshima blast. It was a million times more powerful than the largest bombs of World War II. That one bomb had almost eight times the explosive force of all the bombs we dropped in that war: more than all the explosions in all the wars in human history.

He went on: "I hadn't wanted to work on the A-bomb, either. But then Einstein seemed to think that we needed it, and it made sense to me that we had to have it against the Russians. So I took the job, but I never felt good about it.

"Then when they told me they were going to build a bomb 1,000 times bigger, that was it for me. I went back to my office and I said to my deputy, 'These guys are crazy. They have an A-bomb, now they want an H-bomb. They're going to go right through the alphabet till they have a Z-bomb.'"

I said, "Well, so far they've only gotten up to N."

He said, "There was another thing about it that I couldn't stand. Building these things generated a lot of radioactive waste. I wasn't responsible for designing the containers for the waste, but I knew they were bound to leak eventually. That stuff was deadly forever. It was radioactive for 24,000 years."

Again he had turned up a good figure. I said, "Your memory is working pretty well. It would be deadly a lot longer than that, but that's about the half-life of plutonium."

There were tears in his eyes. He said huskily, "I couldn't stand the thought that I was working on a project that was poisoning parts of my own country forever, that might make parts of it uninhabitable for thousands of years."

I thought over what he'd said; then I asked him if anyone else working with him had had misgivings. He didn't know.

"Were you the only one who quit?" He said yes. He was leaving the best job he'd ever had, and he didn't have any other to turn to. He lived on savings for a while. I thought about Oppenheimer and Conant and Fermi and Rabi, who had, that same month he was resigning, expressed internally their opposition to the superbomb in the most extreme terms possible: it was potentially "a weapon of genocide...whose power of destruction is essentially unlimited...a threat to the future of the human race which is intolerable...a danger to humanity as a whole...necessarily an evil thing considered in any light."

Not one of these men risked his clearance by sharing his anxieties and the basis for them with the American public. Oppenheimer and Conant considered resigning their advisory positions when the president went ahead against their advice. But they were prevailed on not to quit, lest that draw public attention to their expert judgment that the president's course fatally endangered humanity.

I asked my father what had made him feel so strongly, to act in a way that nobody else had done. He said, "You did."

That didn't make any sense. I said, "What do you mean? We didn't discuss this at all. I didn't know anything about it."

Dad said, "It was earlier. I remember you came home with a book one day, and you were crying. It was about Hiroshima. You said, 'Dad, you've got to read this. It's the worst thing I've ever read.'"

I said that must have been John Hersey's book, *Hiroshima*. I didn't remember giving it to him.



"Yes. Well, I read it, and you were right. That's when I started to feel bad about working on an atomic bomb project. And then when they said they wanted me to work on a hydrogen bomb, it was too much for me. I thought it was time for me to get out."

I asked if he told his bosses why he was quitting. He said he told some people, others not. The ones he told seemed to understand his feelings. In fact, in less than a year, the head of the firm called to say that they wanted him to come back as chief structural engineer for the whole firm. They were dropping the DuPont contract (they didn't say why), so he wouldn't have to have anything to do with the AEC or bomb-making. He stayed with them till he retired.

I said, finally, "Dad, how could I not ever have heard any of this before? How come you never said anything about it?"

My father said, "Oh, I couldn't tell any of this to my family. You weren't cleared."

My intense concern about nuclear weapons, an obsession that has shaped my whole adult life, started long before I got my first clearances (in the Marines, later at the RAND Corporation, the Defense and State Departments). It did not begin in 1946 with Hersey's book nor even with the bombing of Hiroshima in 1945. It had its roots almost a year before that, well before almost any other Americans had any warning of the issue.

It was in a ninth grade social science class in the fall of 1944. I was thirteen, a boarding student on full scholarship at Cranbrook, a private school in Bloomfield Hills, Michigan. Our teacher, Bradley Patterson, was discussing a concept that was current then in sociology, William F. Ogburn's notion of "cultural lag."

The idea was that the development of technology regularly moved much further and faster in human social-historical evolution than other aspects of culture: our institutions of government, our values, habits, our understanding of society and ourselves. Indeed, the very notion of "progress" referred mainly to technology. What "lagged" behind, what developed more slowly or not at all in social adaptation to new technology was everything that bore on our ability to control and direct technology and the use of technology to dominate other humans.

To illustrate this, Mr. Patterson posed a potential "advance" in technology that might be realized soon. It was possible now, he told us, to conceive of a bomb made of U-235, an isotope of uranium, which would have an explosive power 1000 times greater than the largest bombs being used in the war that was then going on. German scientists had discovered that uranium could be split by nuclear fission in late 1938, in a way that would release immense amounts of energy.

"How could he possibly have raised this question in 1944?" others have asked me, incredulously, when I have told this story. After all, the Manhattan Project working on a U-235 bomb--along with a plutonium bomb--was then top secret, the best-kept secret of the war along with our breaking of Japanese and German codes. The answer is that several popular articles about the possibility of atomic bombs and specifically U-235 bombs appeared during the war in journals like the *Saturday Evening Post*.

Each one of these was heavily investigated by the FBI and military censors of the Project to see if they represented a leak by Project scientists. None did. In every case they turned out to have been inspired by earlier articles on the subject that had been published freely in 1939 and 1940, before scientific self-censorship and then formal classification had set in. Our teacher had come across one of these wartime articles. He brought the potential development to us as an example of one more possible leap by science and technology ahead of our social institutions.

Suppose, then, that one nation, or several, chose to explore the possibility of making this into a bomb, and succeeded. What would be the probable implications of this for humanity? How would it be used, by humans and states as they were today? Would it would be, on balance, bad or good for the world? Would it be a force for peace, for example, or for destruction? We were to write a short essay on this, in a week.

I recall the conclusions I came to in my paper after thinking about it for a few days. As I remember, everyone in the class had arrived at much the same judgment. It seemed pretty obvious.

The existence of such a bomb—we each concluded--would be bad news for humanity. Mankind could not handle such a destructive force. It could not control it, safely, appropriately. The power would be "abused": used dangerously and destructively, with terrible consequences. Many cities would be destroyed entirely, just as the Allies were doing their best to destroy German cities without atomic bombs at that very time, just as the Germans earlier had done to the center of Rotterdam and had tried their best to do to London. Civilization, perhaps our species, would be in danger of destruction.

It was just too powerful. Bad enough that bombs existed that could destroy a whole city block. They were called "block-busters": ten tons of high explosive. Humanity didn't need the prospect of bombs a thousand times more powerful, bombs that could destroy whole cities. It would get out of control.

As I recall, this conclusion didn't depend mainly on who had the bomb, or how many had it, or who got it first. And to the best of my memory, we weren't addressing it as something that might come so soon as to bear on the outcome of the ongoing war. It seemed likely, the way the case was presented to us, that the Germans would get it first, since they had done the original science. But we didn't base our negative assessment on the idea that this would necessarily be a Nazi or German bomb. It would be a bad development, on balance, even if democratic countries got it first.



After we turned in our papers and discussed them in class, it was months before I thought of the issues again. I remember the moment when I did. I can still see and feel the scene.

It was a hot August afternoon in Detroit. I was standing on a street-corner downtown, looking at the front page of the *Detroit News* in a news-rack. I remember a streetcar rattling by on the tracks as I read the headline. A single American bomb had destroyed a Japanese city.

I was thinking—in contrast, I guess, to almost any other American newspaper readers that day, outside the Manhattan Project—I knew exactly what that bomb was. It was the uranium bomb we had studied last fall.

I thought: "We got it first. And we used it. On a city."

I had a sense of dread, a feeling that something very ominous for humanity had just happened. A feeling, new to me as an American, at fourteen, that my country might have made a terrible mistake. I was glad when the war ended the next week, but it didn't make me think that we had been wrong in class the previous fall, or that my first reaction was wrong on August 6.

I remember that I was uneasy, on that first day and in the days ahead, about the tone in Harry Truman's voice on the radio as he exulted over our success in the race for the bomb and its effectiveness over Japan. I generally admired Truman, then and later, but hearing his announcements I was put off by the lack of concern in his voice, of a sense of tragedy, of desperation or fear for the future. It seemed to me that this was a decision best made in anguish; and both Truman's manner and the tone of the official communiqués made unmistakably clear that this hadn't been the case.

Which meant for me that our leaders didn't have the picture, didn't grasp the significance of the precedent they had set and the ominous implications for the future. And that lack of awareness and concern was itself ominous. It was like being asleep at the wheel of a moving car.

Was I clear in my mind that, on balance, the President had actually made a wrong choice (as I now believe)? Probably not. I couldn't know what the real short-run incentives might have been to use such a weapon at that stage of the war. The official claim that there was no other way to end or shorten the war without a bloody invasion would have seemed overwhelmingly plausible, almost self-evident. That story was false in every respect, but I didn't know that for many years. (Most Americans don't know it yet, and I'm not arguing that point here). It was probably compelling to me, as it was to most of the public. But I was focused on the long run, the precedent.

I believed that something ominous had happened; that it was bad that the bomb was feasible, bad that it had been tested and that the test had succeeded; and that its use would

have had long-term consequences, whether or not these negatives were balanced or even outweighed by short-run benefits.

I sensed almost right away that these feelings separated me from nearly everyone around me, from my parents and friends and from most Americans. They were not to be mentioned. They could only sound unpatriotic. And in World War II, that was about the last way one wanted to sound. These were thoughts to be kept to myself.

Improbable thoughts, for a fourteen-year-old American boy the week the war ended? Yes, if he hadn't been in Mr. Patterson's Social Studies class the previous fall. Every member of that class must have had the same flash of recognition of the Bomb, as they read the August headlines during our summer vacation. Beyond that, I don't know whether they responded as I did, in the terms of our earlier discussion.

But neither our conclusions then or reactions like mine on August 6 stamped us as moral prodigies. Before that day perhaps no one in the public outside our class—no one else outside the Manhattan Project (and very few inside it)-- had spent a week as we had, or even a day, thinking about the impact of such a weapon on the long-run prospects for humanity.

And we were set apart from our fellow Americans in another important way. Perhaps no others outside the Project or our class ever had occasion to think about the Bomb without the strongly biasing positive associations that accompanied their first awareness in August 1945 of its very possibility: that it was "our" weapon, an instrument of American democracy, pursued by two Presidents, developed to deter a Nazi Bomb, a war-winning weapon and a necessary one—so it was claimed and almost universally believed--to end the war without a costly invasion of Japan.

Unlike nearly all the others who started thinking about the new nuclear era after August 6, our attitudes of the previous fall had not been shaped, or warped, by the deceptive claim and appearance that such a weapon had just won a war for the forces of justice, a feat that supposedly would otherwise have cost a million American lives (and as many or more Japanese).

For nearly all other Americans, whatever dread they may have felt about the long-run future of the Bomb (and there was more expression of this in elite media than most people remembered later), that was offset at the time and ever afterwards by a powerful aura of its legitimacy, and its almost miraculous potential for good which had already been realized. For a great many Americans still, the Hiroshima and Nagasaki bombs are regarded above all with gratitude, for having saved their own life or the lives of their husbands, brothers, fathers or grandfathers, which would otherwise have been at risk in the invasion of Japan. For these Americans and many others, the Bomb was not so much an instrument of massacre but a kind of savior, a protector of precious lives.

I'm not addressing here the historical reality behind these beliefs, only the reality of the beliefs themselves and their impact on the developments that followed. The effect on



American minds thereafter was, tacitly, to convey that a massive act of terrorism—the deliberate massacre of civilians for political purpose—*could* be legitimate, necessary, appropriate, (at least, by Americans, in a just cause): and in fact, *had* been so, in our living experience.

Most Americans ever since have seen the destruction of the population of Hiroshima and Nagasaki as justified—as constituting just means, under the supposed circumstances—thus legitimating, in their eyes, the second and third largest massacres in history. (The largest was the American firebombing of Tokyo five months earlier, which burned alive or suffocated 80,000 to 120,000 civilians. The relatively few Americans who are aware of this event at all accept it, too, as justified.)

Even if the alleged circumstances on which these justifications were premised had been realistic (they were not), the consequences for subsequent policymaking of these judgments were bound to be fateful. They underlay the unquestioning acceptance by American officials and public ever since of basing our security on readiness to carry out threats of mass annihilation of civilians by nuclear weapons, which we initially monopolized, and the belief by many officials and elites even today that abolition of these weapons, even if it were feasible, would be undesirable.

Imagine, by way of contrast, the impression of the Bomb that Americans would have had if, as had been feared before the war, it had instead been first developed and used by the Nazis. They would, at most, have had one, two or three weapons (given wartime resource constraints) and they would have lost the war anyway.

The weapon would have appeared (appropriately) as a quintessentially Nazi weapon, fully expressing their depraved values. It would have been associated with defeat, not victory. Its use, and even its development to the point of use, would surely have been charged as a preeminent war crime at Nuremberg—if not a crime against humanity-- and it would have led to convictions and hangings, not only of officials but of scientists and technicians.

The public motivation in America and elsewhere to control and to ban its development, possession or use by anyone--and the prospects for achieving these--would have been radically different from what they were in 1945.

A much better alternative (obviously) would have been for the American people to have had the opportunity and challenge—as we did in our ninth grade classroom—of forming an opinion about the legitimacy and dangers of exploiting the preeminent weapon of mass destruction *before* the debate was permanently prejudiced by the instinct to defend America's use of it.

The crucial revelation that was needed was the authoritative opinion of many top Manhattan Project scientists on the dangers of a nuclear arms race (leading before long, they knew, to vastly more dangerous thermonuclear weapons, the H-bomb), which they believed, correctly, would be made inevitable if the bomb were used on Japan. Yet that warning was

withheld by Project managers even from the president, let alone the public.

Led by Leo Szilard—who had taken out the first patent on nuclear chain reaction in 1933 and had induced Einstein to urge what became the Manhattan Project on Roosevelt in 1939—more than 160 Project scientists signed a petition to the president in June, 1945, asking him seriously to reconsider use of the bomb against Japan, in view both of its immediate moral implications and the potential danger of a nuclear arms race. An earlier form of the petition said simply that, for these reasons, he *should not use it: even if its use might save American lives* in the short-run context of the war.

The petition was bottled up by General Groves, director of the Project; it never got to the president, or even to Secretary of War Henry Stimson until after the bomb had been dropped. There is no record that the scientists' concerns about the future and their judgment of the impact on it of nuclear attacks on Japan were *ever* made known to President Truman before or after his decisions. Still less, made known to the public. The petitions and their reasoning were made classified after Szilard proposed to publish them at the end of the war, and their existence was unknown for a generation.

I have believed for a long time that official secrecy and deceptions about nuclear weapons posture and policies and their possible consequences has threatened the survival of the human species. We have long needed and lacked the equivalent of the Pentagon Papers in this area, above all in the United States and Russia but also in the other nuclear weapons states. I deeply regret that I did not make known to Congress, the American public and the world the extensive documentation of still-unknown nuclear dangers that was available to me forty to fifty years ago as a consultant to and official in the Executive branch working on nuclear war plans, command and control and nuclear crises.

That I had high-level access and played such a role in nuclear planning is, of course, deeply ironic in view of the earlier personal history recounted above. My attitudes toward nuclear weapons and the dangers of nuclear war had not changed an iota since 1945, and they never have. But just as the Manhattan Project scientists were driven by a mistaken, though plausible, fear of a comparable Nazi program, I was one of many in the late Fifties who were misled by similarly exaggerated, and in this case deliberately manipulated, fears.

Precisely because I did receive clearances and was exposed to top secret Air Force Intelligence estimates, I and my colleagues at the RAND Corporation came to be preoccupied with the urgency of averting nuclear war by deterring a Soviet surprise attack that would exploit an alleged "missile gap." That danger (like a Soviet "bomber gap" that preceded it, and others that came later) and the supposedly resulting fragility of deterrence—the "delicate balance of terror," as my mentor, friend and colleague Albert Wohlstetter put it—was exactly as illusory as the Nazi bomb project had been, or, to pick a more recent analogy, as Saddam's supposed WMDs and nuclear pursuit in 2003.

Though eventually the Soviets did emulate us in creating a world-destroying nuclear capability on hair-trigger alert—and Russian nuclear posture and policies continue, along with ours, to endanger civilization and our species—the persistent reality has been that the arms race has been driven primarily by American initiatives and that every major American



decision in this sixty-four year nuclear era has been accompanied by unwarranted concealment, obfuscation, and official and public delusions. To understand the urgency of radical changes in our nuclear policies that may truly move the world toward abolition of nuclear weapons, we need a new understanding of the real history of the nuclear age: based both on newly declassified documents and realities that are still concealed.

I plan in the next months to do my part in unveiling this hidden history, belatedly, using the new opportunities offered by the internet.





<i>Editor's note: This is the first installment of Daniel Ellsberg's online personal memoir of the nuclear era, "The American Doomsday Machine." That will recount highlights of his six years of research and consulting for the Departments of Defense and State and the White House [link 1 to DE background ] on issues of nuclear command and control, nuclear war planning and nuclear crises. It further draws on 34 subsequent years of research and activism [link 32] largely on nuclear policy, [link 13] which followed the intervening 11 years of his preoccupation with the Vietnam War. [link 33). Subsequent installments will appear, like this one, on [www.truthdig.com](http://www.truthdig.com) and some other sites and on Ellsberg's Web site, [www.ellsberg.net](http://www.ellsberg.net). The author is a senior fellow of the Nuclear Age Peace Foundation.</i>

### **<center><b>American Planning for a Hundred Holocausts</b></center>**

One day in the spring of 1961, soon after my 30th birthday, I was shown how our world would end. Not the Earth, not—so far as I knew then—all humanity or life, but the destruction of most cities and people in the Northern Hemisphere.

What I was handed, in a White House office, was a single sheet of paper with some numbers and lines on it. It was headed "Top Secret—Sensitive"; under that, "For the President's Eyes Only."

The "Eyes Only" designation meant that, in principle, it was to be seen and read only by the person to whom it was explicitly addressed, in this case the president. In practice this usually meant that it would be seen by one or more secretaries and assistants as well: a handful of people, sometimes somewhat more, instead of the scores to hundreds who would normally see copies of a "Top Secret—Sensitive" document.

Later, working in the Pentagon as the special assistant to the assistant secretary of defense, I often found myself reading copies of cables and memos marked "Eyes Only" for someone, though I was not that addressee, nor for that matter was my boss. And already by the time I read this one, as a consultant to the Office of the Secretary of Defense, it was routine for me to read "Top Secret" documents. But I had never before seen one marked "For the President's Eyes Only," and I never did again.

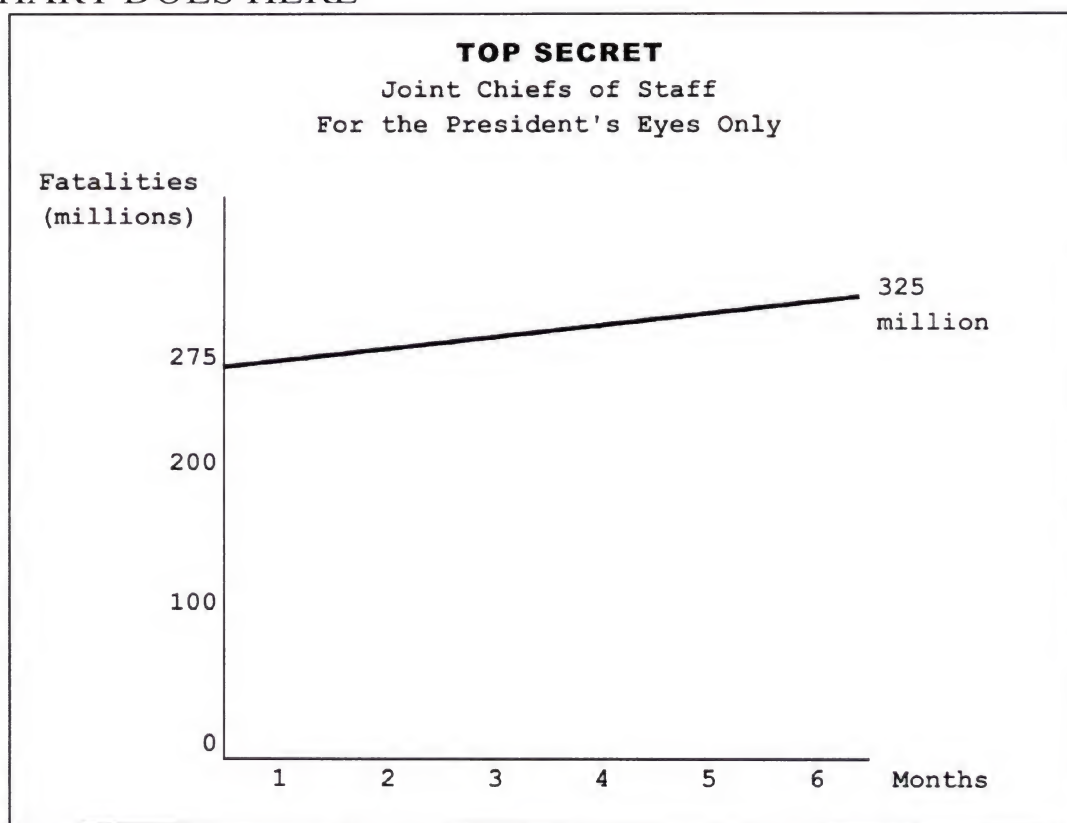
The deputy assistant to the president for national security, my friend and colleague Bob Komer, showed it to me. A cover sheet identified it as the answer to a question President John F. Kennedy had addressed to the Joint Chiefs of Staff a week earlier. Komer showed it to me because I had drafted the question, which Komer had sent in the president's name.

The question to the JCS was: "If your plans for general [nuclear] war are carried out as planned, how many people will be killed in the Soviet Union and China?"

Their answer was in the form of a graph (see representation below). The vertical axis was the number of deaths, in millions. The horizontal axis was time, indicated in months. The graph was a straight line, starting at time zero on the horizontal—on the vertical axis, the number of immediate deaths expected within hours of our attack—and slanting upward to a maximum at six months, an arbitrary cutoff for the deaths that would accumulate over time from initial injuries and from fallout radiation.

The lowest number, at the left of the graph, was 275 million deaths. The number at the right-hand side, at six months, was 325 million.

### CHART DOES HERE



That same morning, with Komer's approval, I drafted another question to be sent to the Joint Chiefs over the president's signature, asking for a total breakdown of global deaths from our own attacks, to include not only the whole Sino-Soviet bloc but all other countries that would be affected by fallout. Again their answer was prompt. Komer showed it to me about a week later, this time in the form of a table with explanatory footnotes.

In sum, 100 million more deaths, roughly, were predicted in East Europe. There might be an additional 100 million from fallout in West Europe, depending on which way the wind



blew (a matter, largely, of the season). Regardless of season, still another 100 million deaths, at least, were predicted from fallout in the mostly neutral countries adjacent to the Soviet bloc and China: Finland, Austria, Afghanistan, India, Japan and others. Finland, for example, would be wiped out by fallout from U.S. ground-burst explosions on the Soviet submarine pens at Leningrad. (The total number of “casualties”—injured as well as killed—had not been requested and were not estimated; nor were casualties from any Soviet retaliatory strikes.)

The total death toll as calculated by the Joint Chiefs, from a U.S. first strike aimed primarily at the Soviet Union and China, would be roughly 600 million dead. A hundred Holocausts.

<center>\* \* \*</center>

I remember what I thought when I held the single sheet with the graph on it. I thought, this piece of paper should not exist. It should never have existed. Not in America. Not anywhere, ever. It depicted evil beyond any human project that had ever existed. There should be nothing on Earth, nothing real, that it referred to.

But I knew what it dealt with was all too real. I had seen some of the smaller bombs myself, H-bombs with an explosive yield of 1.1 megatons each—equivalent to 1.1 million tons of high explosive, each bomb half the total explosive power of all the bombs of World War II combined. I saw them slung under single-pilot F-100 fighter-bombers on alert at Kadena Air Base on Okinawa, ready to take off on 10 minutes’ notice. On one occasion I had laid my hand on one of these, not yet loaded on a plane. On a cool day, the smooth metallic surface of the bomb was warm from the radiation within: a bodylike warmth.

I was in Okinawa in the fall of 1959 as part of a task force organized by the Office of Naval Research, which was there to study and improve nuclear command and control for the commander in chief of the Pacific Command (CINCPAC), Adm. Harry D. Felt. I was on loan from the RAND Corp., which I had joined as a full-time employee in June 1959 after a previous summer there as a consultant. This particular study took us to every command post in the Pacific that year and the next—from Oahu to Guam, Tokyo, Taiwan and the command ship of the Seventh Fleet—with license from Adm. Felt to “talk to anyone, see anything” in the field of nuclear command and control.

At Kadena, the pilots weren’t in the planes on alert or in the hut on the alert strip; they were allowed to be elsewhere, at the post exchange or in their quarters, because each was accompanied at all times by his individual jeep and driver to return him in minutes to the strip when an alert was sounded. They practiced the alert at least once a day. The officer in charge told our research group that we could choose the time for that day’s rehearsal. When our leader said “OK, *<i>now</i>*,” the klaxons sounded all over the area and jeeps appeared almost instantly on all the roads leading to the strip, rushing around curves, pilots leaping out as they reached the strip and scrambling into the cockpits, still

tightening their helmets and gear. Engines started in 10 planes, almost simultaneously. Ten minutes.

These were tactical fighter-bombers, with limited range. There were more than a thousand of them, armed with H-bombs, in range of Russia and China on strips like this or on aircraft carriers surrounding the Sino-Soviet bloc (as we still thought of it in 1961, though China and the Soviets had actually split apart a couple of years before that). Each of them could devastate a large city with one bomb. For a larger metropolitan area, it might take two. Yet the Strategic Air Command (SAC), which did not command these planes (they were under the control of theater commanders), regarded these tactical theater forces as so vulnerable, unreliable and insignificant as a factor in all-out nuclear war that SAC planners had not even included them in their calculations of the outcome of attacks in a general war until that year.

Before 1961, planners at SAC headquarters took into consideration only attacks by the heavy bombers, intermediate-range ballistic missiles and ICBMs commanded by SAC, along with Polaris submarine-launched missiles. In the bomb bays of the SAC planes were thermonuclear bombs much larger than those I saw in Okinawa. Many were from five to 20 megatons in yield. **[link 2]** Each 20-megaton bomb—1,000 times the yield of the fission bomb that destroyed Nagasaki—was the equivalent of 20 million tons of TNT, or 10 times the total tonnage the Allies dropped in World War II. Some 500 bombs in the arsenal each had the explosive power of 25 megatons. Each of these warheads had more power than all the bombs and shells exploded in all the wars of human history.

These intercontinental bombers and missiles had come to be stationed almost entirely in the continental U.S., though they might be deployed to forward bases outside it in a crisis. A small force of B-52s was constantly airborne. Many of the rest were on alert. I had seen a classified film of an incredible maneuver in which a column of B-58s—smaller than B-52s but still intercontinental heavy bombers—taxied down a runway and then took off simultaneously, rather than one at a time. The point—as at Kadena and elsewhere—was to get in the air and away from the field as fast as possible, on warning of an imminent attack, before an enemy missile might arrive. In the time it would normally have taken for a single plane to take off, a squadron of planes would be airborne, on their way to their assigned targets.

In the film these heavy bombers, each as big as an airliner, sped up in tandem as they raced down the airstrip, one behind the other so close that if one had slackened its pace for an instant the plane behind, with its full fuel load and its multiple thermonuclear weapons, would have rammed into its tail. Then they lifted together, like a flock of birds startled by a gunshot. It was an astonishing sight; it was beautiful.

The planned targets for the whole force included, along with military sites, every city in the Soviet Union and China.

On carriers, smaller, tactical bombers would be boosted on takeoff by a catapult, a kind of large slingshot. But since the general nuclear war plan, as I knew, called for takeoff



around the world of as many U.S. planes and missiles as were ready at the time of the execute order—as near-simultaneously as possible—to attack targets that were all assigned in prior planning, the preparations contemplated one overall, inflexible global attack as if all the vehicles, with more than 3,000 warheads, were launched by a single catapult. A sling made for Goliath.

The rigidity of the single, coordinated plan—which by 1961 included tactical bombers—in what was termed the Single Integrated Operational Plan, or SIOP, [\[link 3 to my SIOP clearance document: this might be worth showing as an illustration\]](#) meant that its underlying “strategy” amounted to nothing more than a vast trucking operation to transport thermonuclear warheads to Soviet and Chinese cities and military sites. The latter were the great majority of targets, since all the cities could be destroyed by a small fraction of the attacking vehicles.

One of the principal expected effects of this plan—partly intended, partly (in allied, neutral and “satellite” countries) unavoidable “collateral damage”—was summarized on the piece of paper I held that day in the spring of 1961: the extermination of over half a billion people.

(In fact, this was certainly a vast underestimate of the fatalities. [\[link 15\]](#) Dr. Lynn Eden, a scholar at Stanford’s Center for International Security and Cooperation, has revealed in “Whole World on Fire” [\[link 4\]](#) (Cornell, 2004) the bizarre fact that the war planners of SAC and the Joint Chiefs have—throughout the nuclear era, to the present day—deliberately omitted entirely from their estimates of the destructive effects of U.S. or Russian nuclear attacks the effects of *fire*. They have done so on the grounds that these effects are harder to predict than the effects of blast or fallout on which their estimates of fatalities are exclusively based. Yet the firestorms caused by thermonuclear weapons are known to be predictably the largest producers of fatalities in a nuclear war! Given that for almost all strategic nuclear weapons, the damage radius of firestorms would be two to five times the radius destroyed by blast, a more realistic estimate of the fatalities caused directly by the planned U.S. attacks would surely have been double the figure on the summary I held in my hand—a billion people or more.)

The declared intent of this planning deployment and rehearsal was to deter Soviet aggression. I knew by this time something that was rarely made clear to the American public, that what was to be deterred by all this was not only nuclear attacks by the Soviets but conventional, non-nuclear Soviet aggression, in Europe in particular. In both cases, the story went, it was all designed to prevent such Soviet attacks from ever taking place. This global machine had been constructed in hopes that it would never be set in motion: or, as it was often put, so that it would never be used. The official motto of SAC, on display at all its bases, was “Peace Is Our Profession.”

Deterring Soviet non-nuclear aggression in Europe—say, a military occupation of West Berlin—depended ultimately on a presidential commitment to direct, if necessary, a U.S. nuclear first strike on the Soviet Union. SAC’s profession would shift near-

instantaneously from Peace to War. The Strategic Air Command trained daily, and effectively, to be ready to carry out that order. The American commitment to defend NATO (with Berlin its most vulnerable element) by nuclear threats, and if necessary by strategic first-strike nuclear attacks, effectively passed the trigger for such U.S. attacks to the Soviets.

The real possibility that the Soviets might pull that trigger lay at the heart of all our nuclear planning and preparations. It was understood that although deterrence was the principal objective of our nuclear posture, it was not foolproof. It might fail. That applied both to deterrence of nuclear attack and to deterrence of a conventional Soviet attack in Europe. In either case, it was not impossible that the Soviets would attack despite our threats and our best efforts to dissuade them.

What to do then was a matter of highly classified discussion over the years. But on this question the official top-secret plans approved by President Dwight D. Eisenhower were unequivocal: the demolition of the Sino-Soviet bloc.

A striking and highly secret characteristic of the existing plans was that they called for essentially the same strategic response and targeting list for each of three quite distinct ways in which general war might come about. The first, and most likely in the judgment of the JCS, was a U.S. nuclear first strike as an escalation of conflict between U.S. and Soviet conventional forces, perhaps originating in conflict over Berlin or an uprising in East Europe. Second was U.S. pre-emption of an imminent Soviet nuclear attack on the U.S., or as I'd heard it described in the Pentagon, "striking second first." Third—and least likely in the eyes of the JCS—was a retaliatory response to a successful Soviet surprise attack.

Although the size of the U.S. force available for attack would be different in each of these cases, the Eisenhower-approved plans called for the same target list—which included 151 "urban-industrial targets," i.e. cities, along with military targets—to be attacked under all conditions.

The circumstances of war initiation, by determining the size of the force, would influence only the amount of coverage of the target list. Initial attacks would be as massive and as nearly simultaneous in arrival as possible. Attacks by all nonalert forces would follow as quickly as they could be launched. No forces would deliberately be held in reserve: an arrangement perhaps unique in the history of war planning.

And in all three cases, all large cities of both the Soviet Union and China (even if China had no part in the crisis or hostilities triggering execution of this plan) were high on the list for initial, simultaneous missile attacks, and for subsequent coverage by bombers: along with the highest-priority Soviet missile sites, air bases, air defenses and command centers.

In the White House in January 1961 I had informed the newly arrived assistant to the president for national security, McGeorge Bundy, of a number of little-known facts and



problems. (How I came to this knowledge will be recounted later in this series.) One of these was the focus on U.S. first-strike plans in American preparations for any conflict with the Soviet Union involving forces above the level of a brigade. Another was Eisenhower's approval of operational planning to destroy an "optimum mix" [\[link 5\]](#) of population targets along with military sites no matter how the conflict had originated.

A third subject in my briefing was the variety of ways in which the strategic forces might be triggered "by accident": by false alarm, miscalculation, miscommunication, or actions not directly authorized by the president or perhaps by any high-level commander. (Exploring these possibilities in the field had been my special mission in the CINCPAC task force, and later as a RAND specialist in "command and control" of nuclear weapons.)

The last point in particular caught Bundy's attention. I reported what I had learned in the Pacific, one of the most sensitive secrets in the system: that to forestall the possibility that our retaliatory response might be paralyzed either by a Soviet attack on Washington or by presidential incapacity, President Eisenhower had as of 1958 secretly delegated to theater commanders the authority to launch nuclear operations in a crisis, either in the event of the physical unavailability of the president—Eisenhower himself had suffered both a stroke and a heart attack in office—or if communications with Washington were cut off.

I had further learned that CINCPAC, Adm. Felt, had likewise delegated that authority downward in his command, under like conditions. That put many fingers on the button if communications went out between Washington and Hawaii, or Hawaii and the Western Pacific. In those years such an outage occurred for each of these links, on average, once a day. Thus this arrangement magnified greatly the possibilities listed above for "inadvertent, accidental" nuclear war, especially when outages occurred during a potential nuclear crisis such as the Taiwan Straits (Quemoy) confrontation of 1958. (The response of the Kennedy and Johnson administrations to this information will be addressed in my next installment.)

The combined message of these reports was that our overall system for strategic response had the character of a giant thermonuclear mousetrap on a hair trigger. For a wide variety of provocative circumstances—definitely not requiring and most not involving either Soviet-initiated nuclear attacks or imminent expectation of them—it was set inflexibly to annihilate a large fraction of the civilian population of the Soviet Union and China, and of many allies and neutrals.

My one-on-one briefing of Bundy in his first weeks in office—arranged by Paul Nitze, the assistant secretary of defense for international security affairs—was in part the reason I was in a position to draft questions for the White House soon after. As it happened, I had drafted the question about estimated deaths from execution of the general war plans in the belief that the JCS did not know an answer to it. Officers I worked with in the planning staff of the Air Force were convinced that no one, either in the Joint Staff or the Air Staff, had ever calculated the overall human consequences of carrying out their plans. That encouraged me to ask the JCS in the name of a higher authority for an estimate, in



the expectation they would be embarrassed by having to admit they could not answer it promptly.

The authority I had in mind initially was the secretary of defense. (Although funding for RAND, including my salary, came mainly from the Air Force at that time, I was in effect on loan to the Office of the Secretary of Defense for much of 1961.) But as I've said, the question was picked up by the White House and sent in the president's name. I had deliberately limited it, initially, to effects in the Soviet Union and China alone, instead of worldwide or the Sino-Soviet bloc. That was to keep the Joint Staff from disguising its lack of any estimates at all by pleading a need for time to calculate casualties, say, in Albania, or the Southern Hemisphere.

Alternatively, I expected the Joint Staff to improvise an estimate which could easily be exposed, to its embarrassment, as unrealistically low. The point of eliciting either of these expected responses was to gain bargaining power for the secretary of defense in a bureaucratic effort (discussed later) to change the JCS plans in the direction of guidance I had drafted for the secretary earlier that month.

But my expectations were wrong. The Joint Chiefs were embarrassed neither by the question nor by their answer. That was the surprise, along with the answer itself. The implications, as I saw them, were literally existential, bearing on the nature and future of our species.

I myself at that time was neither a pacifist nor a critic of the explicit logic of deterrence or its legitimacy. On the contrary, I had been urgently working with my colleagues to assure a survivable U.S. capability to threaten clearly unacceptable damage to the Soviet Union in response to the most successful possible Soviet nuclear attack on the U.S. But planned slaughter of 600 million civilians—10 times the total death count in World War II, a hundred times the scale of the Holocaust? That aimed-for accomplishment exposed a dizzying irrationality, madness, insanity, at the heart and soul of our nuclear planning and apparatus.

I said earlier that I saw that day how the northern civilized world would end. I might have thought instead how it *could* end or *might* do so, but that wasn't the conclusion I drew then. The chart I held in my hand that spring morning said to me that any confidence—worse, it seemed, any realistic hope—that the alert forces on either side might never be used was ill-founded.

The Americans who had built this machine, knowing, it turned out, that it would kill more than half a billion people if it were turned on—and who were unabashed in reporting this to the president—humans like that would not fail to pull the switch if ordered to do so by a president, or, as I mentioned above and will discuss in the next installment, possibly by a superior other than the president.

And the presidents themselves? A few months earlier, Dwight Eisenhower had secretly endorsed the blueprints of this multi-genocide machine. He had furthermore demanded

largely for budgetary reasons that there be *no other plan* for fighting Russians. He had approved this single strategic operational plan despite reportedly being, for reasons I now understood, privately appalled by its implications. And the Joint Chiefs had responded so promptly to his successor's question about the human impact of our planned attacks because they clearly assumed that John Kennedy would not, in response, order them to resign or be dishonorably discharged, or order the machine to be dismantled. (In that, it turned out, they were right.)

Surely neither of these presidents actually desired ever to order the execution of these plans, nor would any likely successor want to take such an action. But they must have been aware, or should have been, of the dangers of allowing such a system to exist. They should have reflected on, and trembled before, the array of contingencies—accidents, false alarms, outages of communications, Soviet actions misinterpreted by lower commanders, unauthorized action—that might release pent-up forces beyond their control; and on possible developments that could lead them personally to escalate or launch a pre-emptive attack.

Eisenhower had chosen to accept these risks. To impose them on humanity, and all other forms of life. Kennedy and Lyndon B. Johnson to my direct knowledge did likewise. So did Richard Nixon. [\[link 19\]](#) To bring this story up to the present, there is much evidence—and none to the contrary—that the same has been true of every subsequent president.

Two more aspects of their gambles were not known to me in 1961. Later accounts in this series will reveal that in the Quemoy crisis three years earlier and the Cuban missile crisis one year later—and to lesser extent in a couple of dozen other episodes—these risks came secretly closer to being realized than almost anyone recognizes to this day.

Moreover, the scale of the potential catastrophe was and remains vastly greater than I or the JCS or any presidents imagined over the next 20 years. Not until 1982-83 did new calculations—recently confirmed[\[link 25\]](#)—reveal that hemispheric and possibly global clouds of smoke and soot from the burning cities attacked by U.S. or Russian forces would block out sunlight for a prolonged period, lowering temperature drastically during spring and summer, freezing lakes and rivers and destroying crops worldwide. This “nuclear winter” [\[link 16\]](#) could extinguish many forms of life and starve to death billions of humans.

Yet the “option” of massive attacks on cities (or, euphemistically, upon industrial and military targets within or near cities) almost surely remains one among many planned alternatives, ready as ever to be carried out, within the strategic repertoire of U.S. and Russian plans and force readiness: this, a quarter-century after the discovery of the nuclear winter phenomenon.

The U.S. and Russia currently each have about 10,000 warheads, over 2,000 of them operationally deployed. (Each has several thousand in reserve status—not covered in



recent negotiations—and an additional 5,000 or so awaiting dismantlement). Presidents Barack Obama and Dmitry Medvedev have agreed to lower the operational warheads to between 1,500 and 1,675 by the year 2012. But the explosion of <i>1,000</i> warheads between them could trigger a full-scale nuclear winter. And recent studies [link 25] show the possibility of ecological catastrophe from smoke effects on the ozone layer after a very much smaller exchange, such as could occur between India and Pakistan.

A 2007 peer-reviewed study [link 17] concluded that “the estimated quantities of smoke generated by attacks totaling little more than one megaton of nuclear explosives [two countries launching 50 Hiroshima-size bombs each] could lead to global climate anomalies exceeding any changes experienced in recorded history. The current global arsenal is about 5000 megatons.” A December 2008 study in *Physics Today* [link 18] estimates that “the direct effects of using the 2012 arsenals [1,700 to 2,200 Russian and American warheads each] would lead to hundreds of millions of fatalities. The indirect effects [long-term, from smoke] would likely eliminate the majority of the human population.”

It is the long-neglected duty of the American Congress to test these scientific findings against the realities of our secret war plans. It is Congress’ responsibility to investigate the nature of the planned targets for the reduced operational forces proposed by Obama and Medvedev—1,500 to 1,675—or some lower but still huge number like 1,000, and the foreseeable human and environmental consequences of destroying those targets with the attacks currently programmed.

The questions to be addressed initially are simple: “How many cities would burn under our various preplanned ‘options’? How many humans would die from these various attacks—from blast, fire, fallout, smoke, soot and ozone depletion—in the target country, in its regional neighbors, in America, and worldwide?”

And these, less simple: “For each of these possible attack options and exchanges, what is the likely, and the range of possible, impact on the regional and global environment? Which of our options, if any, threaten to produce regional or worldwide nuclear winter? <i>Do we—or does any state—have a right to possess such an ‘option’?</i> Should a U.S. or Russian president have the authority—or the power, as each now has—to order attacks that might have the global effects described above?”

Our representatives in Congress should—for the first time—take on responsibility for learning about and influencing the possible human and environmental consequences of carrying out our operational nuclear war plans. But past experience makes clear that Senate or House members will not hold real investigative hearings, using committee subpoena powers, to penetrate the curtains of secrecy around these matters without a new level of pressure from American citizens. (To join some worthy efforts—which have not heretofore, in my judgment, focused sufficiently on congressional investigation or war planning—see **here** [link 8], **here** [link 27], and **here** [link 31].

This is not a responsibility only for Americans and their representatives. The stakeholders directly threatened by the possibility, however unlikely, that Americans and Russians might launch a major fraction of their presently deployed nuclear forces against each other comprise all the citizens of every state on Earth.

*<i>Every parliament in the world</i>* has an urgent need to know what its constituents have to expect—in the way of homicidal and environmental damage—from a U.S.-Russian nuclear exchange: or for that matter, from an India-Pakistan exchange. These assemblies have a stake in discovering—and changing—the societal and ecological impact of the existent contingency war plans of every nuclear weapons state, the U.S. and Russia above all but the others as well. What is needed is a worldwide movement.

Fortunately there are several efforts to join (see **here** [link 9], **here** [link 26], **here** [link 28], **here** [link 29], and **here** [link 30]), in keeping with President Obama's declared goal of a world free of nuclear weapons.

I felt sure in 1961 that the existent potential for moral and physical catastrophe—our government's readiness to commit multi-genocidal extermination on a hemispheric scale by nuclear blast and fallout (no one knew yet of the global danger of ecocide and mass extinctions from smoke and ozone depletion)—was not only a product of aberrant Americans or a peculiarly American phenomenon. I was right. A few years later, after the Soviets were humiliated by the Cuban missile crisis and Nikita Khrushchev was ousted, the Kremlin set out to imitate our destructive capacity in every detail and surpass it when possible.

To be sure, Americans, and U.S. Air Force planners in particular, were the only people in the world who believed that they had won a war by bombing, and, particularly in Japan, by bombing civilians. [Link 10] In World War II and for years afterward, there were only two air forces in the world, the British and American, that could so much as hope to do that.

But the nuclear era put that demonic temptation—to deter, defeat or punish an adversary on the basis of an operational capability to annihilate most of its population—eventually within the reach of a great many nations. By the spring of '61, four states (soon to be five, now nine) had, at great expense, bought themselves that capability. Humans just like these American planners—and presidents—were surely at work in every nuclear weapons state producing plans like these for nuclear attacks on cities.

I knew personally many of the American planners, though apparently—from the fatality chart—not quite as well as I had thought. What was frightening was precisely that I knew they were not evil, in any ordinary, or extraordinary, sense. They were ordinary Americans, capable, conscientious and patriotic. I was sure they were not different, surely not worse, than the people in Russia who were doing the same work, or the people who would sit at the same desks in later U.S. administrations. I liked most of the planners and analysts I knew. Not only the physicists at RAND who designed bombs and the economists who speculated on strategy (like me), but the colonels who worked on these



very plans, whom I consulted with during the workday and drank beer with in the evenings.

That chart set me the problem, which I have worked on for nearly half a century, of understanding my fellow humans—us, I don't separate myself—in the light of this real potential for self-destruction of our species and of most others. Looking not only at the last eight years but at the steady failure in the two decades since the ending of the Cold War to reverse course or to eliminate this potential, it is hard for me to avoid concluding that this potential is more likely than not to be realized in the long run.

Are further proliferation and—what I have focused on here—the persistence of superpower nuclear arsenals that threaten global catastrophe a near-certainty? Is it too late to eliminate these dangers, in time? Some dark days I think so, as I did that morning in the White House. Most of the time I don't, or I would not have tried as I have and still do to eliminate them, and I would not be using my time to begin this account of them.

The story does get worse; see, for example, my next installment, “How Many Fingers on the Buttons?” The more one learns about the hidden history of the nuclear era—this is the cumulative message of this ongoing series—the more miraculous it seems that the doomsday machines which we and the Russians have built and maintained have not yet triggered each other. At the same time, the clearer it becomes that we could **[link 11]** and that we must **[link 24]** dismantle them.

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4. Lynn Eden, Whole World on Fire (Chapter 1)

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More Evidence on the Origins of Overkill

National Security Archive Electronic Briefing Book No. 130

Edited by William Burr

Posted July 13, 2004

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National Security Archive Electronic Briefing Book No. 173

By William Burr  
202/994-7032

Posted - November 23, 2005

<http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB173/>

**[Note: links 7, 18, 14, 20 below are now all replaced by link 25, which lists them all]**

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11. [http://www.amazon.com/At-Nuclear-Precipice-Catastrophe-Transformation/dp/023060904X/ref=sr\\_1\\_1?ie=UTF8&s=books&qid=1249542861&sr=1-1](http://www.amazon.com/At-Nuclear-Precipice-Catastrophe-Transformation/dp/023060904X/ref=sr_1_1?ie=UTF8&s=books&qid=1249542861&sr=1-1)
13. <http://www.ellsberg.net/archive/ending-nuclear-terrorism-by-america-and-others>
8. <http://capwiz.com/wagingpeace/issues/alert/?alertid=13833796>
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22. [http://www.amazon.com/Challenge-Abolishing-Nuclear-Weapons/dp/1412810361/ref=sr\\_1\\_1?ie=UTF8&s=books&qid=1251834405&sr=1-1](http://www.amazon.com/Challenge-Abolishing-Nuclear-Weapons/dp/1412810361/ref=sr_1_1?ie=UTF8&s=books&qid=1251834405&sr=1-1)



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25. <http://climate.envsci.rutgers.edu/nuclear/>

26. <http://www.middlepowers.org/>

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33. [http://www.amazon.com/Secrets-Memoir-Vietnam-Pentagon-Papers/dp/0142003425/ref=sr\\_1\\_2?ie=UTF8&s=books&qid=1252009569&sr=1-2](http://www.amazon.com/Secrets-Memoir-Vietnam-Pentagon-Papers/dp/0142003425/ref=sr_1_2?ie=UTF8&s=books&qid=1252009569&sr=1-2)

I reported this to McGeorge Bundy's new deputy, Carl Kaysen. (Kaysen had read my honors thesis at Harvard and recommended me for the Society of Fellows). I explained my puzzlement at the situation. I had failed to find anyone in the Washington area, where the supposed delegation had been made and where highest-level command was exercised, who had even heard that anyone anywhere believed that someone outside Washington was authorized to launch nuclear attacks on his own. Yet there seemed no reason to doubt either that officers in the Pacific believed that such a delegation had been made, or that lower-level sub-delegation had actually occurred.

There were several possibilities to explain this discrepancy. The officers in the Pacific might be right and those I talked to in the Washington area might be simply ignorant of the situation. Or the latter officers might all be giving me a runaround. Given my credentials from the White House it was unlikely that they would all be doing that independently. However, it wasn't quite out of the question, in a matter as sensitive as this, that a lot of phoning had been going on. (This would have meant a concerted effort to keep the information from the President, or at least from his National Security Assistant. Unlikely, but not quite impossible). I didn't think that either of these was probably the case.

I told Kaysen that my best judgment was that the officers in the Pacific were misled. The supposed letters from Eisenhower probably did not exist. But I felt quite sure that the belief in the letters was real and that it had real consequences, dangerous ones, that needed correcting. It provided a false precedent for the lower-level delegations that CINCPAC and perhaps others were reported to have made, which I was quite sure did exist. (If the Eisenhower letters did exist, after all, the precedent was not false, but just as dangerous in its effects). Either way there remained a dangerous situation that Kennedy needed to address.

It didn't make sense for President Kennedy to allow the sub-delegations to persist if he wasn't willing himself to make the delegation to CINCPAC and other theater and SAC commanders which Eisenhower had supposedly made but apparently had not. And I didn't think he should do that, in large part because it would then be organizationally quite hard to keep further delegations from being made, though he could try.

I thought he ought to do a further investigation to confirm what I had found in the Pacific, that various levels of command *believed* they were authorized to launch nuclear operations without explicit Presidential command. If it were confirmed, he should explicitly refute this belief.

About a month later, in late June or early July of 1961, I was in Kaysen's office in the Executive Office Building when he mentioned to me, "By the way, we found your black notebook."

"What notebook?" I hadn't heard of a notebook, and I hadn't mentioned one to him.

"The one with the letters from Eisenhower."

He pointed to a looseleaf notebook on a table by his window. He told me there were copies of letters signed by Eisenhower to each of the theater commanders, along with SAC and JCRAD, who controlled nuclear weapons, specifying circumstances under which they were authorized to use nuclear weapons without immediate Presidential authorization.

He said the circumstances included the need, in their judgment, for fast action at a time when communications were out with Washington. But they weren't limited entirely to that. They also provided for situations when the President was physically incapacitated, as during